

ABSTRACT

A vertical component or the like of a floor reaction
force moment to be applied to a robot 1 is defined as a
5 restriction object amount, and the permissible range of
the restriction object amount is set. A provisional
motion of the robot that satisfies a predetermined dynamic
balance condition is determined on a predetermined dynamic
model, and if a restriction object amount determined by
10 the provisional motion deviates from the permissible range,
then the motion of a desired gait is determined by
correcting the provisional motion by changing the angular
momentum changing rate of the robot from the provisional
motion while limiting the restriction object amount to the
15 permissible range on the dynamic model.